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EXAMINER

NGUYEN, TRUC T

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,854

Applicant(s)

BLAHA, WILLIAM E.

Examiner

Truc T. T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 13 January 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-¹³~~14~~, 15, 17 and 20 are rejected under 35 U.S.C. 102(b) as being unpatentable over Hartmann et al (US 5,975,940).

Regarding claims 1-3 and ¹³~~13~~, Hartmann et al. disclose a push-in connector for connecting electrical conductors (27), comprising:

a housing including a case (4) and a cap (5) attached to one another defining an enclosure and having a plurality of entry ports (6) formed in the cap and a receptacle (defined by blind-hole 8 and wall 23, column 3, lines 20-23) formed in the case for receiving the conductors inserted through the entry ports, each of the receptacles aligned with each of the entry ports;

a conductive bus bar (10) mounted to the housing in the enclosure between the entry ports and the receptacle; and

a pressure spring (12) mounted to the housing in the enclosure and engageable with electrical conductors inserted therein, the pressure spring being adapted to bias the electrical conductor into electrical engagement with the bus bar.

Regarding claim 4, Hartmann et al. disclose the busbar (10) having a rear edge supported in the case and a front edge supported in the cap (see Figure 1).

Regarding claims 5 and 17, Hartmann et al. disclose the cap having plurality of retainer lugs (E1, see examiner's attachment 1) and a first edge of the busbar engaging the lug to retain the first edge in a fixed position in the housing (see Figures 1 and 3).

Regarding claim 6, Hartmann et al. disclose the busbar having an angled edge (11) such that a conductor insert into a receptacle will contact the busbar in at least two points (see Figure 3).

Regarding claim 7, Hartmann et al. disclose the cap has a front portion (E3, see Examiner's attachment 1) and a telescoping portion (E4, see Examiner's attachment 1), the telescoping portion fitting inside the case.

Regarding claim 8, Hartmann et al. disclose the entry ports formed in the front block comprises a cylindrical saddle portion (E5, see Examiner's attachment 1) and a conical guide portion (E6, see Examiner's attachment 1).

Regarding claim 9, Hartmann et al. disclose the front block defining a recess (retainer the lug E1 and the angled edge E2) for receiving the pressure spring.

Regarding claim 10, Hartmann et al. disclose the front block defining an angled wall (E2, see Examiner's attachment).

Regarding claim 15, Hartmann et al disclose the plurality of receptacles formed in the case, each of the receptacles being aligned with one of the plurality of entry ports, and at least a portion of the pressure spring and the busbar being mounted intermediate the receptacles and the entry ports.

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Regarding claim 20, Hartmann et al disclose a plurality of retention tabs (E8, E9, see Examiner's attachment 1) and a plurality of retention slots (E10, E11, see Examiner's attachment 1) formed in the cap and the case respectively to hold the cap and the case together.

3. Claims 13, 14 and 16 are rejected under 35 U.S.C. 102(b) as being unpatentable over Tozuka (US 5,454,730).

Regarding claim 13, Tozuka discloses a push-in connector (10) for connecting electrical conductors (2), comprising:

a housing including a case (11) and a cap (12) attached to one another and defining an enclosure, the cap having a plurality of entry ports (13) which provide access to the enclosure;

a conductive bus bar (21) having first and second edge (B2, B3 see Examiner's attachment 2) being supported in the case and the cap respectively.

a pressure spring (22) mounted to the housing in the enclosure and engageable with electrical conductors inserted therein, the pressure spring being adapted to bias the electrical conductor into electrical engagement with the bus bar.

Regarding claim 14, Tozuka discloses the pressure spring comprising a base plate (35) having a first edge and a second edges (B7, 32 see Examiner's attachment) being supported in the case and the cap respectively (see Figure 1).

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Regarding claim 16, Tozuka discloses a projection (40) formed in the case for engaging the first edge of the base plate to retain the first edge in a fixed position in the housing.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Hartmann et al teaches

5. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartmann et al. (US5,975,940) in view of Beege et al. (US 6,280,233 B1) and Wang (US 6,093,052).

Hartmann et al. disclose a push-in connector for connecting an electrical conductor (2), comprising:

a housing (4, 5) defining an enclosure and having a plurality of entry ports (6) providing access to the enclosure, the housing further including a plurality of receptacles (defined by blind-hole 8 and wall 23, column 3, lines 20-23), each of the receptacles aligning with each of the entry ports;

at least one projection (E1, see Examiner's attachment) extending into the enclosure;

an electrically conductive bus bar (10) fixedly mounted in the housing; and

a pressure spring (12) mounted in the housing having a base plate (12) engaging the projection to retain the base plate in a fixed position in the housing, a leg (18) being positioned opposite the entry ports and being flexibly movable such that the legs are deflected when

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electrical conductor are inserted into the housing, the pressure spring being adapted to bias the electrical conductor into electrical engagement with the bus bar.

Hartmann et al. does not disclose the pressure spring having a plurality of legs cantilevered from the base plate, and the pressure spring being spaced from the busbar such that no part of the pressure spring contacts the busbar.

Beege et al suggested a pressure spring (3) having a plurality of legs (3b) cantilevered from base plate (3a).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a pressure spring with plurality of legs cantilevered from the base plate into Hartmann et al.'s connector, as suggested by Beege et al for the purpose effectively withdraw an associated conductor independently (column 4, lines 39-46).

Wang suggests a push-in connector having a pressure spring (2) being spaced from a busbar (3) in such a way that no part of the pressure spring contacts the busbar (see Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hartmann et al.'s connector with the pressure spring being spaced from a busbar in such a way that no part of the pressure spring contacts the busbar, as suggested by Wang, for the purpose of preventing contact damage during transportation.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tozuka (US 5,454,730) in view of Wang (US 6,093,052).

Tozuka discloses the pressure spring having a base plate (35) and at least two flexible legs (31).

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Tozuka substantially disclose the claimed invention except for the pressure spring being spaced from the busbar in such a way that no part of the pressure spring contacts the busbar.

Wang suggested a push-in connector having a pressure spring (2) being spaced from a busbar (3) in such a way that no part of the pressure spring contacts the busbar (see Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tozuka's connector with the pressure spring being spaced from a busbar in such a way that no part of the pressure spring contacts the busbar, as suggested by Wang for the purpose of preventing contact damage during transportation.

7. Claim 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tozuka (US 5,454,730) in view of Wang (US 6,093,052) as applied in claim 18 above, and further in view of Hartmann et al. (US5,975,940).

Tozuka in view of Wang substantially disclose the claim invention except for the housing having a plurality of receptacles being aligned with the plurality of entry ports.

Hartmann et al. teach a housing (4, 5) defining an enclosure and having a plurality of entry ports (6) providing access to the enclosure, the housing further including a plurality of receptacles (defined by blind-hole 8 and wall 23, column 3, lines 20-23), each of the receptacles aligning with each of the entry ports.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Tozuka's housing with a plurality of receptacles being align with the entry ports, as taught by Hartmann et al., for the purpose of reducing electromagnetic interference between conductors.

Response to Arguments

8. Applicant's arguments with respect to claims 1, 11-13 have been considered but are not persuasive. Because:

a) In response to applicant's argument on page 4, line 20 to line 7 of page 6, the Examiner respectfully disagrees. The applicant has failed to claim the pressure spring is being directly mounted to the housing. Hartmann et al. disclose the pressure spring is mounted to the housing via another conductive member. Therefore, the applicant's amendment does not overcome the Hartmann reference.

b) In response to applicant's argument on page 6, line 8 to line 2 of page 7, the Examiner respectfully disagrees. A 35 U.S.C.103(a) rejection can not be attacked by attacking each reference individually where the rejections are based on combinations of references. *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, the examiner only uses a feature "plurality of legs" as taught by Beege to modify Hartmann et al's contact.

c) In response to applicant's argument on page 7, line 3 to line 5 of page 8, the Examiner respectfully disagrees. The Examiner recognizes that references cannot be arbitrarily combined and that there must some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. *In re Nomiya*, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is that the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. *In re McLaughlin*, 170 USPQ

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209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. *In re Bozek*, 163 UPSQ 545 (CCPA 1969).

In this case, the examiner only uses a feature "the pressure spring being spaced from the busbar" as taught by Wang to modify Hartmann et al's contact.

d) In response to applicant's argument on page 8, lines 6-21, the examiner respectfully disagrees. The Examiner would like to reiterate that a 35 U.S.C. 103(a) rejection can not be attacked by attacking each reference individually where the rejections are based on combinations of references. *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, Hartmann et al. disclose a spring contact being mounted in the housing via another member, Beege taught a feature "plurality of legs" cantilever from a base portion, and Wang taught "the pressure being spaced from the busbar". Each of the individual features which was taught by Beege and Wang being used to modify Hartmann et al's contact.

In conclusion, the applicant's amendments do not overcome the rejection based on the combination references of Hartmann et al., Beege, and Wang.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T. T. Nguyen whose telephone number is 703-306-4004. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on 703-308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

T. Nguyen
March 24, 2003


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